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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/530,689	04/07/2005	Ulrich Weber	LO29-023	6899
21567	7590	08/10/2006	EXAMINER	
WELLS ST. JOHN P.S. 601 W. FIRST AVENUE, SUITE 1300 SPOKANE, WA 99201			MARTINEZ, JOSEPH P	
			ART UNIT	PAPER NUMBER
			2873	

DATE MAILED: 08/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/530,689	<b>Applicant(s)</b> WEBER ET AL.	
	<b>Examiner</b> Joseph P. Martinez	<b>Art Unit</b> 2873	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 30 May 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 20-25 is/are allowed.
- 6) ☒ Claim(s) 1-6, 8 and 15-19 is/are rejected.
- 7) ☒ Claim(s) 7 and 9-14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>5-30-06</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 8 recites the limitation "the mutually parallel seats" in line 3 of claim 8. There is insufficient antecedent basis for this limitation in the claim. For the purposes of examination, the office interprets claim 8 to depend upon claim 7.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6, 15 and 17 are rejected under 35 U.S.C. 102(b) as being fully anticipated by Ikeda (5638223).

Re claim 1, Ikeda teaches for example in fig. 2-4, an objective, which is assembled from a number of individual housing structures (41, 42, 43, 44, 45, 46, 48),

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optical elements being arranged in each housing structure (col. 5, ln. 38-61), wherein at least one first housing structure (housing structure (not labeled) supporting 45 and in between 45 and 48) having portion comprising a plurality of seats (32a, 32b, 32c in conjunction with 34; col. 4, ln. 50-51) on which one or more further housing structures (45 and 48) are adjusted (col. 5, ln. 9-11) and are connected to said first housing structure (col. 6, ln. 10-12); and at least one of said seats (32a in conjunction with 34) are provided for the purpose of adjusting and mounting (col. 5, ln. 9-11) of at least one optical element or optical subassembly (45) in said first housing structure, and wherein the at least one first seat (seat at left side of 45) is angled relative to at least one other seat (seat at right side of 45), and the angle being greater than 0 degrees (wherein the office interprets fig. 4 to detail 45 to be seated at an angle, and therefore teaches the claimed limitation).

Re claim 3, Ikeda further teaches for example in fig. 2-4, the objective is a projection objective in microlithography (col. 1, ln. 14) for producing semiconductor components (wherein the office interprets the claimed limitation to be intended use and is not given patentable weight).

Re claim 4, Ikeda further teaches for example in fig. 2-4, a number of optical axes (AX1, AX2, AX3) being formed by said housing structures.

Re claim 5, Ikeda further teaches for example in fig. 2-4, said plurality of seats are provided on external surfaces of said first housing structure (wherein the office interprets the seats of 45 to be on external surfaces of housing structure (not labeled) supporting 45 and in between 45 and 48 and therefore teach the claimed limitation).

Re claim 6, Ikeda further teaches for example in fig. 4, provided as said external surfaces is at least one first seat that runs at an angle of less than 30 degrees, in particular at least approximately parallel, to a first optical axis (wherein the office interprets the right seat of 45 to be on an external surface, to be at an angle of less than 30 degrees relative to a horizontal line and to be substantially parallel with AX3).

Re claim 15, Ikeda further teaches for example in fig. 1, a projection exposure machine (fig. 1) for producing semiconductor components (wherein the office interprets the claimed limitation to be intended use and is not given patentable weight).

Re claim 17, Ikeda further teaches for example in fig. 4, the angle of the at least one seat relative to the at least one other seat comprises less than 30 degrees (wherein the office interprets the seat at the right side of 45 to be at an angle of less than 30 degrees relative to the seat at the left side of 45, as shown in fig. 4).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 16, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ikeda (5638223).

Re claim 16, supra claim 15. Furthermore, Ikeda teaches for example in fig. 1, a light (S).

But, Ikeda fails to explicitly teach the light with a wavelength of less than 360 nm.

However, Ikeda teaches for example in fig. 1, varying the source of light (col. 4, ln. 9).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Ikeda with a light source with a wavelength of less than 360 nm in order to provide proper illumination for a mask.

Re claims 18 and 19, supra claim 1. Furthermore, Ikeda further teaches for example, the at least one seat relative to the at least one other seat is set at an angle (wherein the office interprets the seat at the right side of 45 to be at an angle relative to the seat at the left side of 45, as shown in fig. 4).

But, Ikeda fails to explicitly teach the angle is greater than 60 degrees or the angle is within a range of about 30 degrees to about 60 degrees.

However, Ikeda teaches for example, varying the tilt angle of the barrel with washers (col. 5, ln. 5-11). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to teach the angle is greater than 60 degrees or the angle is within a range of about 30 degrees to about 60 degrees, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Ikeda with varying the angle greater than 60 degrees or the angle is within a range of about 30 degrees to about 60 degrees in order to provide proper alignment of the optical devices, as taught by Ikeda (col. 5, ln. 5-11).

#### ***Allowable Subject Matter***

Claims 7-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 20-25 are allowed.

The following is an examiner's statement of reasons for allowance or for the indication of allowable subject matter: the prior art taken alone or in combination fails to anticipate or fairly suggest the limitations of the claims, in such a manner that a rejection

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under 35 USC 102 or 103 would be proper. The prior art fails to teach a combination of all the claimed features as presented in dependent claim 7 and independent claims 20 and 25.

Specifically regarding claim 7, Ikeda teaches the state of the art of an optical objective.

But, Ikeda fails to explicitly teach a combination of all the claimed features including provided as said further external surfaces are two mutually parallel seats which lie at an angle of less than 30 degrees to a further optical axis, as claimed.

Specifically regarding claims 20 and 25, Ikeda teaches the state of the art of an optical objective.

But, Ikeda fails to explicitly teach a combination of all the claimed features including provided as said further external surfaces are two mutually parallel seats which lie at an angle of less than 30 degrees to a further optical axis; and further comprising a fourth seat arranged at an angle of 45 degrees +/- 15 degrees to the first seat and to said two mutually parallel seats, and wherein arranged on said fourth seat is a deflecting mirror for producing a third optical axis for a second housing structure, as claimed.



As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-5 and 15-19 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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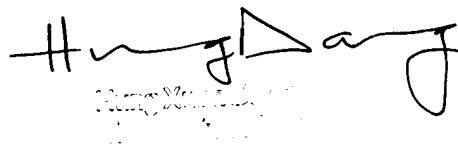
shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph P. Martinez whose telephone number is 571-272-2335. The examiner can normally be reached on M-F 7:00 AM to 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Mack can be reached on 571-272-2333. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JPM  
8-3-06

A handwritten signature in black ink, appearing to read "J. P. Martinez", with a stylized flourish at the end.